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An Insight into the Covid-19 Pandemic's Effect on Mental Health

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ABSTRACT

A novel coronavirus is known as Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). SARS-CoV-2 was identified at the end of 2019 in Wuhan City, Hubei in China. Due to the emergence in the cases of the COVID-19, there was complete lockdown in the world which led to a situation of psychological distress among the population and socio-economic crisis.

Objectives: The main goalofthestudyistolearning the Insight into the impact of COVID-19 pandemic on mental health in the general people all over the world.

Methods: This was an experimental study. The subject's demographic details and responses were collected with the help of a standardized questionnaire. The collected data were entered in Microsoft Excel and then suitablegraphical and inferential statistical investigation was performed.

Results: It was found that the Fear of Covid-19 (FCV-19) scores on average, were increased among females (17.2), younger adults (16.15) and older adults (17.78). The frequency of stress, depression and anxietywas higher in younger adults (18-27 years) when compared to older adults according to this study. Female subjects had a higher prevalence of depression, anxiety and stress when compared to the males.

Conclusion: From this study, it is evident that there is a need for early strategies, programs and mental health policies to alleviate the effect of the pandemic on mental health. People should be educated regarding the COVID-19 disease, its preventive measures and also the importance of mental health during the times of this deadly pandemic.

Keywords:COVID-19, Anxiety, Mental health, Depression, Fear, Stress.

INTRODUCTION

Coronavirus disease 2019 can cause infection. The first case of COVID-19 was reported to WHO on December 31, 2019 in Wuhan at China. On March 11, 2020, the virus was classified as a global pandemic. By April 2020, the coronavirus had infected 214 countries and territories and was spreading rapidly. according to Chinese officials, those over the age of 80 had the highest mortality rate. The cause of the pandemic is unknown, but it is widely believed to be transmitted by bats, which act as transitional hosts between pathogens and humans. This term is currently under investigation.[1]

Most people diagnosed with coronavirus infection have mild or moderate pulmonary symptoms and recover without treatment. People over the age of 65, including those with pre-existing health conditions such as heart disease, diabetes mellitus, long-term lung disease, and cancer, are more likely to develop life-threatening illnesses.

Nasal hygiene is especially important because coronaviruses are primarily transmitted through particles in saliva and nasal secretions when a sick person coughs or sneezes (for example, covering coughs and sneezes with your elbow).

COVID-19 and mental health

Fear, anxiety, and tension, along with confusion and the unknown, are typical reactions to real or real danger. Fear is appropriate and acceptable in the context of the COVID-19 outbreak.

Concerns about contracting an infectious disease in an outbreak such as COVID-19 are exacerbated by significant changes in our daily lives as activities are restricted to contain and limit transmission of the disease. I'm here. Working from home, temporary unemployment, homeschooling children, lack of real interaction with family, friends and colleagues are all changing circumstances, and we care about the physical and mental health of each individual is needed.[2]

The following are number of consequences of stress:
• Changes in appetite, strength, aspirations, and goals
• Panic, rage, sorrow, concern, numbness, or irritation
• Concentration and decision-making issues
• Sleep disturbances or night terrors
• Chronic health problems such as headaches, body pain, gastrointestinal difficulties, and skin irritation, become worse.
• A deterioration of mental health conditions.
• Tobacco, alcohol, and other substances are being used more frequently.[3]
Individuals are unaccustomed with widespread household isolation directives, that expresses worries as to how organizations and individuals may behave. A latest overview of psychological effects in tests of quarantined individuals and healthcare professionals demonstrated tension, depressed mood, lethargy, sleeplessness, worry, uncertainty, anguish, unhappiness, loneliness, as well as problems attached with confinement; a few of these sentimental results remained after the lockdown was lifted.
Prolonged duration of isolation, limited resources, difficulties accessing medical treatment as well as drugs, and the ensuing monetary loss all added towards the distress. The COVID-19 crisis poses a hazard to personal and group health, and also socio-emotional performance. Aside from healthcare, existing overwhelmed medical-care providers should supervise socio -emotional requirements as well as impart psychological services to their patient populations, medical groups and the general population through operations that can be included into general outbreak medical services.[4]
As the pandemic has great impact on mental health, there is increasing need to study its effect on the general population. The purpose of this study is to see how the COVID-19 pandemic is affecting people's mental health.

Material and Method

Study subjects were identified based on inclusion and exclusion criteria by investigators during field visits. The purpose of the study was explained to the patient and informed consent was obtained. Relevant data (demographic details) were recorded and subjects were managed with other research measures to obtain relevant information. The data thus obtained were entered into a Microsoft Excel sheet and evaluated accordingly.

Place of study:
The study was conducted in selected areas of Bangladesh

Study design:
This is a prospective observational study.

Survey Criteria:
A total of 202 subjects who met the inclusion criteria were included in the study.

Inclusion Criteria:
a. Subjects willing to give consent.
b. The target audience is 18 years and over.
c. For both men and women.
Exclusion criteria:
a. Persons with a history of mental illness.
b. Individuals who are currently COVID-19 +ve.

Data collection tools:
1. Self-designed demographic data sheet:
Collect relevant demographic details for your field of study.
2. Fear of the COVID-19 Scale (FCV-19):
COVID-19 fear is a 7-item scale with robust psychometric properties. This is reliable and valid in assessing his COVID-19 fear in the general population.
3. Depression, Anxiety and Stress Scale 21 (DASS-21):
The Depression, Anxiety and Stress Scale-21 Items (DASS-21) consists of three scales designed to measure the emotional state of depression, anxiety and stress.

Statistical analysis:
All recorded data were entered into MS Excel software and analyzed using SPSS-22 software version to determine statistical significance. Descriptive statistics such as mean and standard deviation were calculated for quantitative variables, and frequencies and percentages were calculated for categorical variables. Histograms and pie charts were applied to determine the nature of the data distribution. Spearman's correlation was performed to find correlations between age, DASS-21 and FCV-19 scores, and between gender, DASS-21 and FCV-19 scores. Paired t-tests were performed on DASS-21 and FCV-19 scores based on gender.

RESULTS

Age distribution of subjects
Out of 178 study subjects, majority of them 93 (52.24%) were from the age group of 18-27 years, while the least (0.5%) with only one subject each were from the 68-77 and above 78+ age groups.

Table 1: Age distribution of subjects.

Age groups	Number of subjects	Percentage %
18-27	93	52.24
28-37	30	16.85
38-47	25	14.04
48-57	19	10.67
58-67	9	5.05
68-77	1	0.5
78+	1	0.5
TOTAL	**178**	**100**

Distribution of subjects by gender

Out of 178 subjects included in the study, the majority of the subjects 96 (53.93%) were males. The percentage of females 82 (46.06%) included in the study were lesser than the males.

Table 2: Distribution of subjects by gender.

Gender	Number of subjects	Percentage%
Male	96	53.93
Female	82	46.06
Total	**178**	**100**

Distribution of Fear of Covid-19 (FCV-19)scores

Fear of COVID-19 is a 7-item scale that has robust psychometric properties. It is reliable and valid in assessing fear of COVID-19 among the general population. Out of the total of 178 subjects, the majority 81 (45.50%) of them had FCV-19 score in the range of 15-22 and the least 3(1.68%) of them had 31+ FCV-19 score.

Table 3: Distribution of FCV-19 Scores.

FCV-19 Score	Number of subjects	Percentage %
7-14	77	43.25
15-22	81	45.50
23-30	17	9.55
31+	3	1.68
Total	**178**	**100**

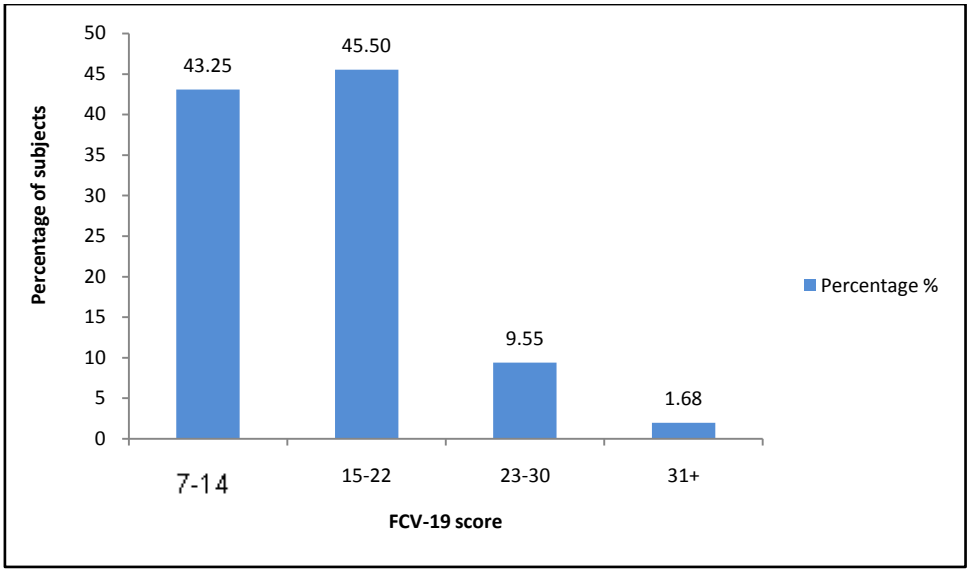

Figure 2: Distribution of FCV-19 scores.

Age and Fear of Covid-19 scores:

In this study, the average FCV-19 score was the highest (18.08) in the age group of 58-67 years and the least (13.65) in the 48-57 years age group.

Table 4: Age groups and average FCV-19 score.

Age groups	Average FCV-19 Score
18-27	16.32
28-37	14.72
38-47	15.69
48-57	13.65
58-67	18.08

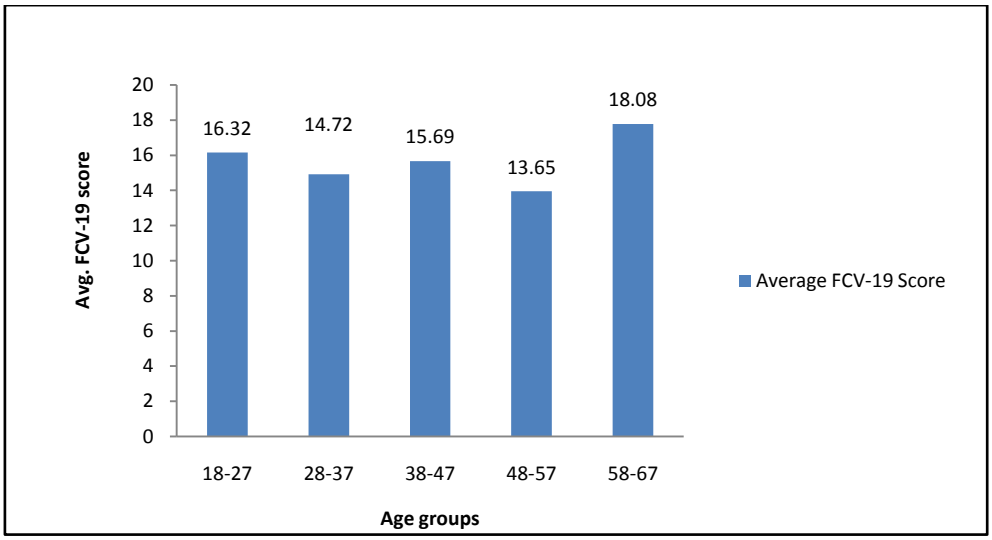

Figure 3: Age groups and average FCV-19 scores.

Distribution of Depression, Anxiety and Stress Scale-21 (DASS-21) scores :

The Depression, Anxiety, and Stress Scale -21 items (DASS-21) is set of 3 scales designed to measure the emotional states of stress, depression and anxiety. Each of the three DASS-21 scales contains seven items, divided into sub scales with similar content. Scores for depression, anxiety, and stress are calculated by summing the scores for the relevant items.

Table 5: Distribution of DASS-21 scores.

DASS-21 levels	Number of subjects	Percentage%
No Depression	65	36.51
Depression	113	63.48
No Anxiety	48	26.96
Anxiety	130	73.03
No Stress	86	48.31
Stress	92	51.68

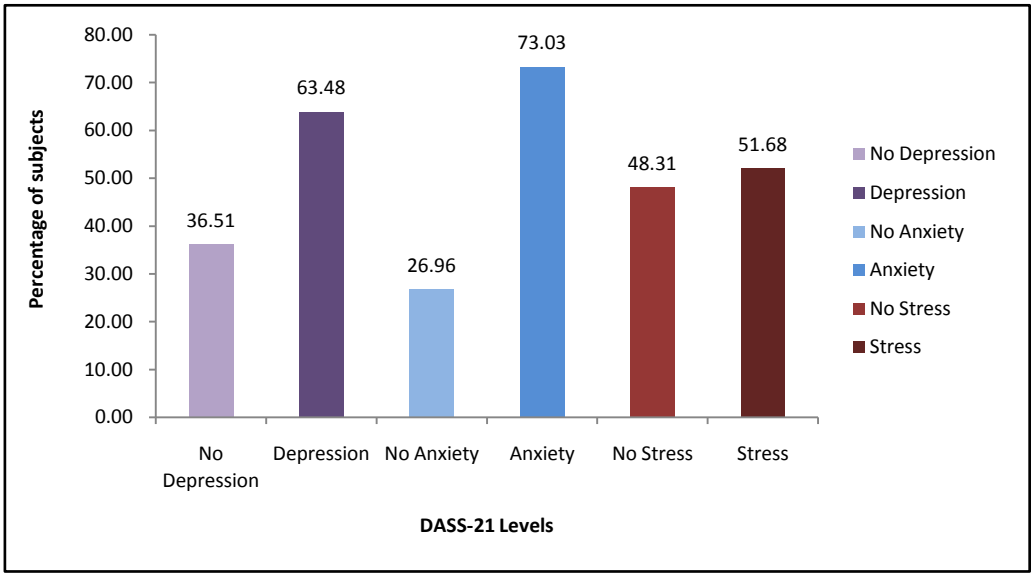

Figure 4: Distribution of DASS-21 scores.

Distribution of DASS-21 scoresamong females:

In the present study, the majority 56(70%) of female subjects had some level of depression, and only 24(30%) of them had no depression. The number of females with some level of anxiety 57(71.25%) were higher than those with no anxiety 23(28.75%). 47(58.75%) of the females had some level of stress compared to 33(41.25%) who had no level of stress.

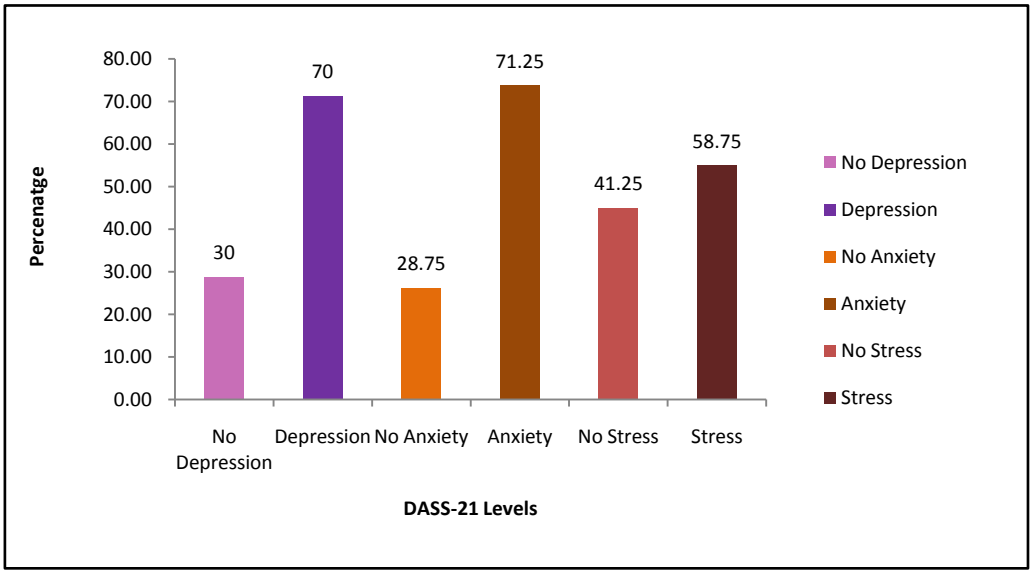

Figure 5: Distribution of DASS-21 scores among females.

Distribution of DASS-21 Scores among males:

In the present study, the majority 53(56.38%) of male subjects had some level of depression, and only 41(43.61%) of them had no depression. The number of males with some level of anxiety 68(72.34%) were higher than those with no anxiety 26(27.65%). 44(46.80%) of the males had some level of stress compared to 50(53.19%) who had no level of stress.

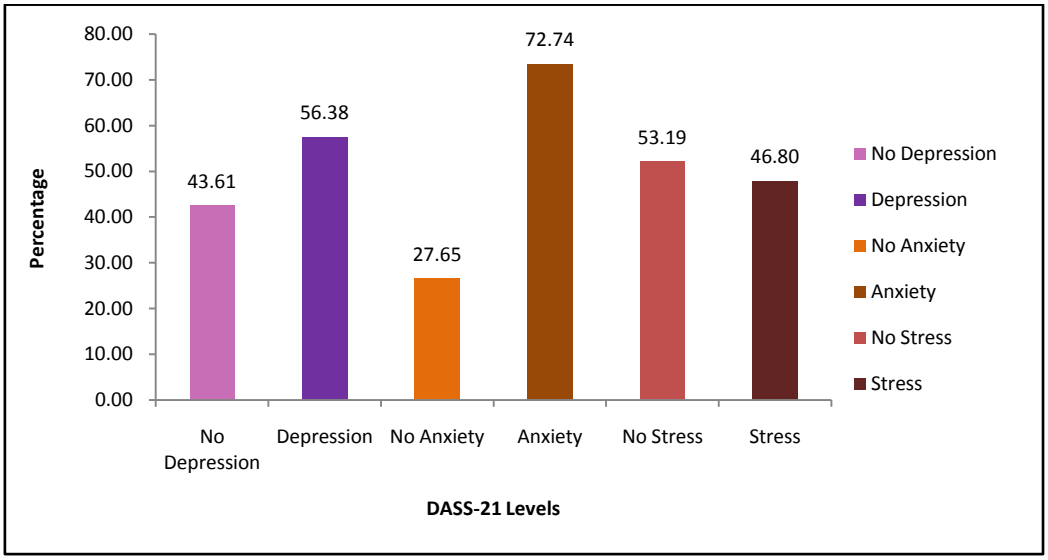

Figure 6: Distribution of DASS-21 scores among males.

Distribution of FCV-19 scores among females:

Out of 82 female subjects, the majority 45 (54.87%) of females had FCV-19 scores in the range of 15-22 and the least 1(1.25%) of them had FCV-19 score of 31 and above. The average FCV-19 scores for females was found to be 13.35.

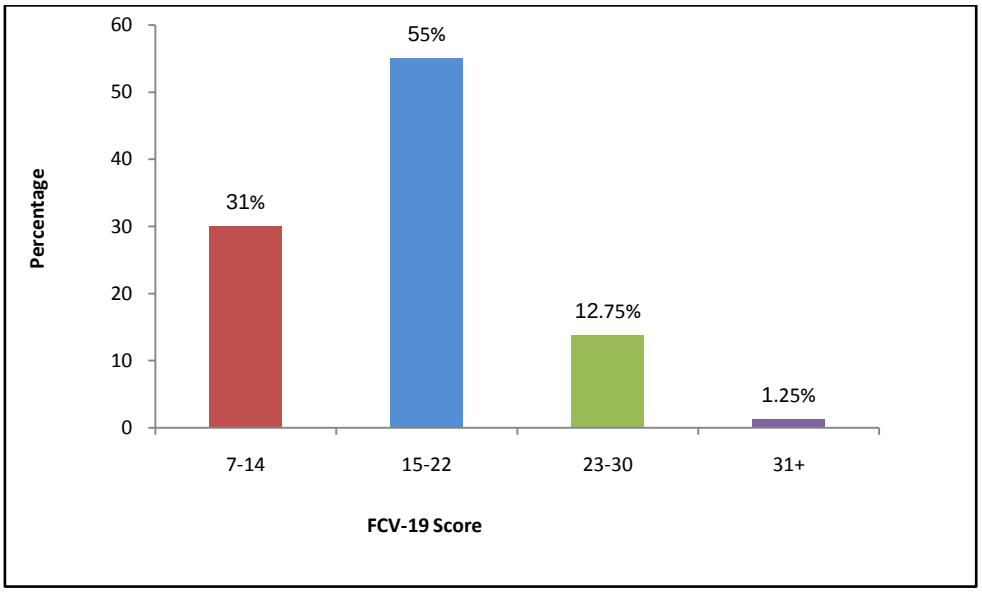

Figure 7: Distribution of FCV-19 scores among females.

Distribution of FCV-19 scores among males:

Out of 96 male subjects, the majority 55(57.29%) of males had FCV-19 scores in the range of 15-22 and the least 2(2.07%) of them had FCV-19 score of 31 and above. The average FCV-19 scores for males was found to be 14.72.

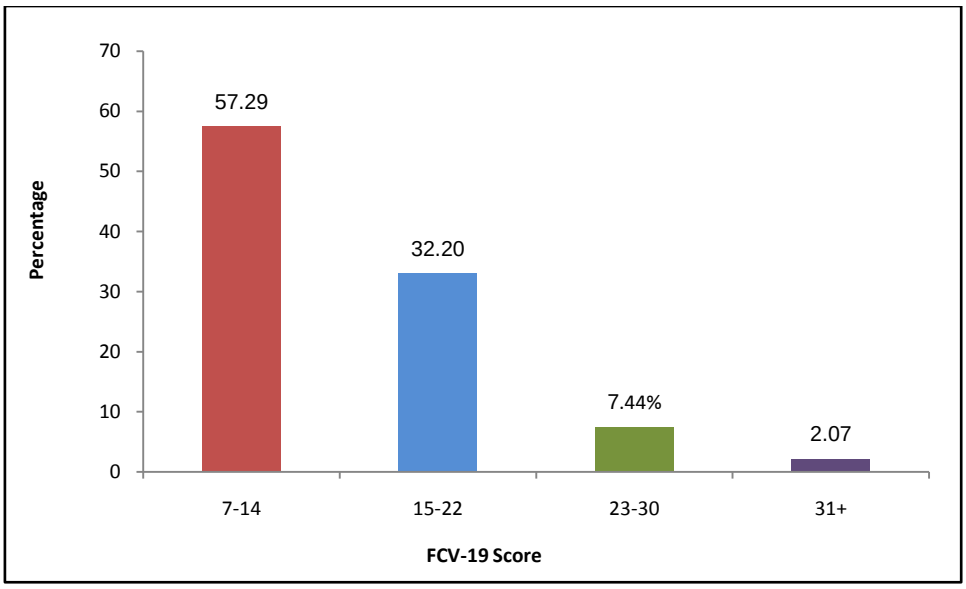

Figure 8: Distribution of FCV-19 scores among males.

Distribution of Depression levels by SES:

In the present study, the majority i.e., 53(47.75%) of the subjects with some level of depression belonged to the 'lower middle' class, followed by 43(38.74%) subjects belonging to 'upper middle' class and 10(9.01%) subjects belonging to the 'upper lower' class. The least i.e., 5(4.5%) of them belonged to the 'upper' class.

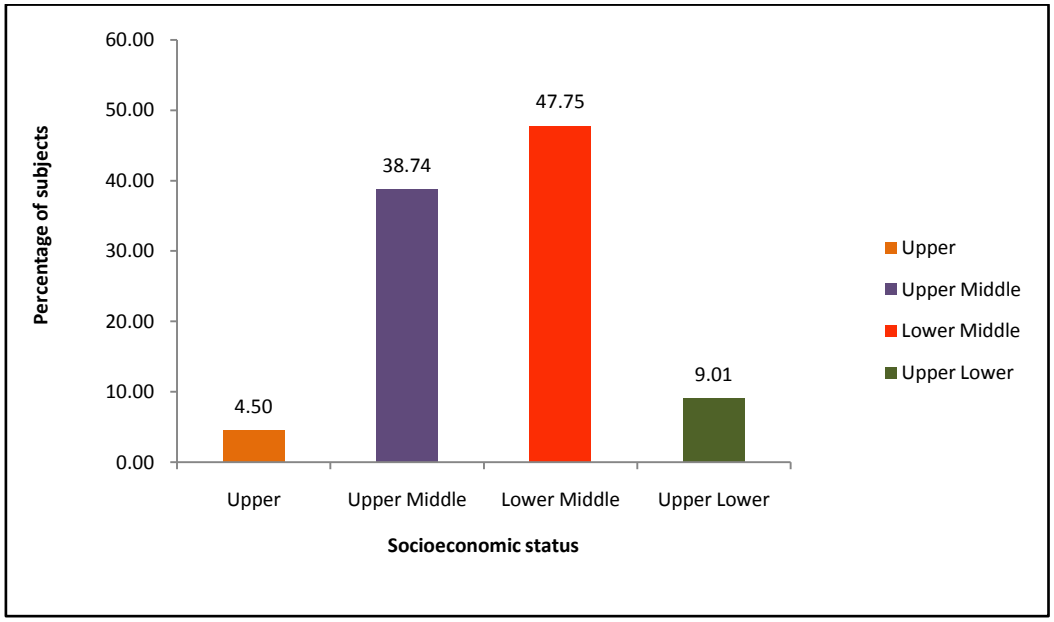

Figure 9: Distribution of Depression levels by SES.

Distribution of Anxiety levels by SES: Total 113 in Depression

In the present study, the majority i.e., 56(49.55%) of the subjects with some level of anxiety belonged to the 'lower middle' class, followed by 42(37.16%) subjects belonging to 'upper middle' class and 11(9.73%) subjects belonging to the 'upper lower' class. The least i.e., 4(3.53%) of them belonged to the 'upper' class.

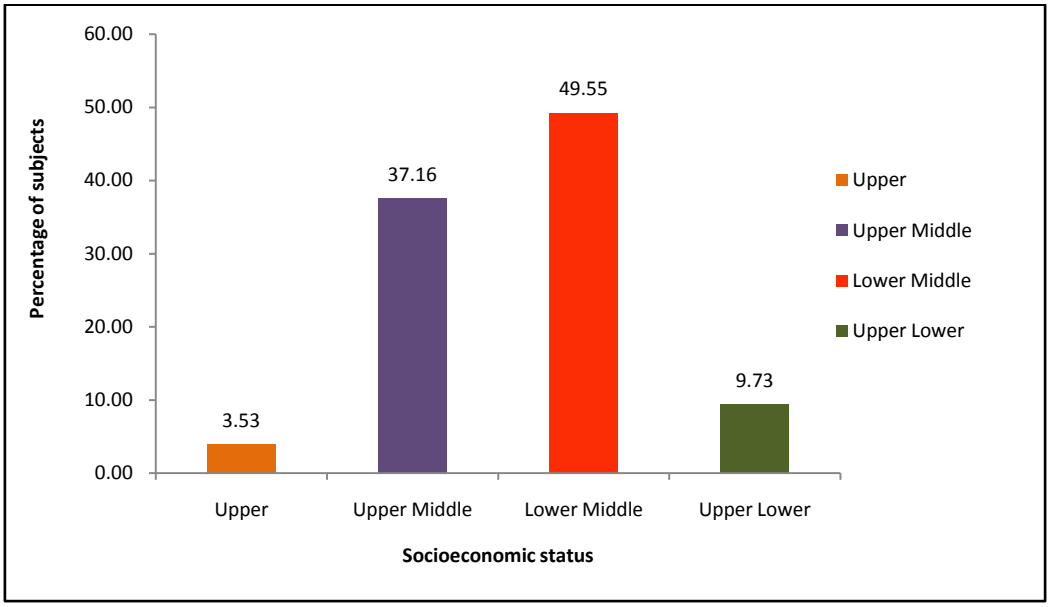

Figure 10: Distribution of Anxiety levels by SES.

Distribution of Stress levels by SES: Total 92 in Stress

In the present study, the majority i.e., 45(48.91%) of the subjects with some level of stress belonged to the 'lower middle' class, followed by 36(39.13%) subjects belonging to 'upper middle' class. The least i.e., 6(6.52%) of them each belonged to the 'upper' and ' upper lower' classes.

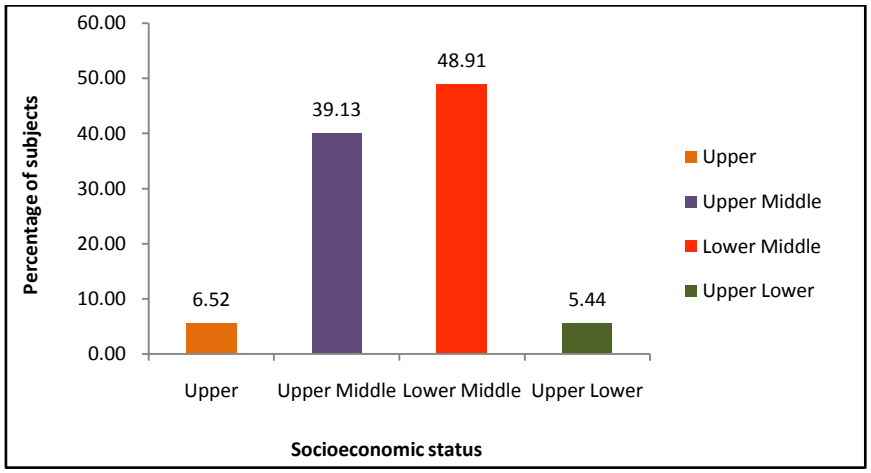

Figure 11: Distribution of Stress levels by SES.

DISCUSSION

This observational study was conducted in communities at Bangladesh, over a 3-month period from January 2021 to March 2021. A total of 178 subjects were enrolled in the study based on various inclusion and exclusion criteria.
Subjects were classified by age, gender, and socioeconomic status. Of the 178 subjects who participated in the study, the majority belonged to the 18-27year old age group (52.24%) (n=93) and the majority were male (53.93%) (n=96). More than women (46.06%) (n=82). The 'lower middle class' subjects were the most common. Our study showed increased anxiety in subjects aged 18 to 27 and women with FCV-19 scores ranging from 15 to 22). al., (2021) Pandemic fears are rising among young people and women.[5]

The study found that women scored higher for depression, anxiety and stress. These results were similar to the study by Zhang Yao et al. al., (2020) reported that a woman had greater psychological impact from her COVID-19 outbreak, with higher scores for depression, anxiety, and stress.[6]

The current study found a prevalence of anxiety of 72.74%. This corresponds to a study by PassosLígia et al. al., (2020), the prevalence of anxiety was 71.3%.[7]

The study also concluded that more than two-fifths of her subjects experienced anxiety (72.74%) and depression (63.48%) due to her COVID-19 pandemic. al., (2020) came to a similar conclusion that more than two-fifths of people suffer from anxiety and depression due to lockdowns and the widespread COVID-19 pandemic.[8]

The prevalence of stress in this study was higher in women than in men. This is according to Torales Julio et. al., (2020), women experienced more stress than men during the COVID-19 pandemic.[9]

The results of this study also showed that the prevalence of depression, anxiety and stress was higher in younger subjects than in older subjects. Similar results were also found in a study by Izu Nwachukwu et al. al., (2020), mean scores across depression, anxiety, and stress scales decreased in severity from younger to older age.[10]

The study found that, on average, women had higher anxiety levels than men. These results were similar to the study by YehudaiMor et al. al., (2020) showed that women, on average, reported higher levels of anxiety than men.[11]

The study showed increased anxiety and emotional distress not only in women, but also in young adults (55% of whom had her FCV-19 score in the range of 15 to 22). These results were comparable to the study by Niedwiedz Claire et al. al., (2020) concluded that emotional distress in women and young adults increased after her month-long lockdown.[12]

Women had higher levels of depression (70%) than men (56.38%). Similar results were obtained in a study by Delmastro Marco et al. al., (2020) showed that women are more likely to develop depressive symptoms.[13]

CONCLUSION

Coronavirus disease (COVID-19) is a newly discovered coronavirus that tends to cause infectious disease. Due to the emergence of the COVID-19 pandemic, there was complete lockdown in the world which lead to a situation of socio-economic crisis and psychological distress among the population.

A high prevalence of adverse psychological systems was reported in this study. Due to lack of awareness regarding COVID-19, a panic like situation was created in the subjects. It was found that the Fear of Covid-19 (FCV-19) scores, on average, were increased among younger adults, older adults and females.

A high prevalence of depression, anxiety, and stress symptoms were observed during the pandemic, as evidenced by this study. According to this study, the prevalence of depression, anxiety and stress was higher in younger subjects when compared to older adults. Female subjects had a higher prevalence of depression, anxiety and stress when compared to the males.

It was also observed that the majority of the subjects who had certain level of depression, anxiety and stress belonged to the 'Lower Middle' class.

From this study, it is evident that there is a need for early strategies, programs and mental health policies to mitigate the impact of the pandemic on mental health. People should be educated regarding the COVID-19 disease, its preventive measures and also the importance of mental health during the times of this deadly pandemic.

SUMMARY

A new coronavirus called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) was identified in Wuhan, Hubei, China in late 2019. The outbreak of the COVID-19 pandemic has plunged the world into total lockdown, causing a socio-economic crisis and psychological stress among the population. The primary aim of this study was to examine the impact of the COVID-19 pandemic on mental health in the general population. This was an observational study. Subject demographic data and responses were collected using a standardized questionnaire. Covid-19 (FCV-19) fear levels were found to be elevated on average among young adults (16.15), older adults (17.78) and women (17.2). According to this study, the prevalence of depression, anxiety, and stress was higher in younger adults (ages 18–27) than in older adults. The prevalence of stress was high. This study demonstrates the need for early mental health strategies, programs, and policies to reduce the mental health impact of the pandemic. People need to be educated about the COVID-19 disease, its precautions, and the importance of mental health in times of this deadly pandemic.

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